



A marked up copy of the foregoing replacement paragraph, showing all of the changes relative to the previous version of said paragraph, is attached hereto on a separate page, in compliance with 37 C.F.R. § 1.121(b)(1)(iii).

Immediately after the section entitled "REFERENCE TO PROVISIONAL APPLICATION," which occurs at page 1, lines 4-9, please add the following new heading and paragraph:

ACKNOWLEDGMENT OF GOVERNMENT SUPPORT

This invention was made with Government support under Grant No. 96-35100-3212, awarded by the United States Department of Agriculture. The government has certain rights in the invention.

In the Drawing:

Please delete Fig. 5 in its entirety.

REMARKS

The Official Communication of May 29, 2001 has been reviewed and its contents carefully noted. Claims 1-23 remain in this case. In response to the Communication, stating that a Sequence Listing is required, the specification and drawing are hereby amended. More particularly, Fig. 5, showing an alignment of certain protein sequences, is hereby deleted, and all references in the specification to Fig. 5 are also deleted. Further, reference to USDA funding and the government's rights in the invention are hereby added.

The Examiner's attention is hereby drawn to the fact that a Sequence Listing in compliance with 37 C.F.R. §§ 1.821-1.825 is attached hereto. No new matter has been added.

Conclusion

Applicant believes the claims are patentable over the prior art, and that this case is in condition for allowance of all claims therein. Such action is thus respectfully requested. If the Examiner disagrees, or believes for any other reason that direct contact with Applicants' attorney

would advance the prosecution of the case to finality, he is invited to telephone the undersigned at the number given below.

"Recognizing that Internet communications are not secured, I hereby authorize the PTO to communicate with me concerning any subject matter of this application by electronic mail. I understand that a copy of these communications will be made of record in the application file."

Respectfully Submitted:
Conklin *et al.*

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Marked-up Copy of Amendment to Specification, in compliance with 37 C.F.R. 1.121(b):

To test the hypothesis that *vtc1-1* and *vtc1-2* harbor mutations in the GDP-mannose pyrophosphorylase gene, the potential for mutations in the pyrophosphorylase genomic sequence derived from each of these mutant alleles was examined. The sequences of both *vtc1-1* and *vtc1-2* contain the identical single cytosine to thymine point mutation at position +64 relative to the first base of the presumed initiator methionine (Figure 3D). This predicted missense mutation would convert a highly conserved proline to a serine at amino acid 22 in the GDP-mannose pyrophosphorylase amino acid sequence [(Figure 5)].